Study of Socio-Economic Dynamics of Textile Weavers of Bihar with Special Reference to Bhagalpur Textile Cluster

A

Synopsis

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Submitted by

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1.0 INTRODUCTION

Wearing clothes is a social standard that symbolizes virtue. Any item worn in a body which is made up of fabrics, animal skin or any natural products in the environment is benamed as cloth. The amount and type of clothes worn may vary according to gender, body type, social factors, and geographical considerations. Clothing has some important purposes for every human which is worn for identification, well-being, hygiene, sobriety, uniforms, raiment and regalia, status decoration, and others.

The word textile emanates from the Latin word “textilis” which means woven. The word textilis comes from the word textus, the past participle of the verb texere which means “to weave”. Primordially, the term was used only for woven fabrics but as of now, it is used for a broad spectrum of materials which include fibers, yarns, fabrics, and other related items.

1.1 Global Textile Industry

The world’s largest textile producing economies and the top textile exporters in the world expedite the growth of the global textile industry. At a compound annual growth rate of 6.6%, the global textile industry grew from $573.22 billion in 2022 to $610 billion in 2023 according to Textile Global Market Report 2023. In the year 2022, Asia Pacific was the largest region in the textile market followed by Western Europe. China always being the largest textile manufacturer and exporter over decades, has dominated solely in the global textile market and is the largest producer of man-made fiber in the world followed by India (Markets, 2023).

1.2 Indian Textile Industry

One of the oldest industries in the Indian economy is the textile industry firming its place for several centuries. The Indian textile industry is the second largest source of employment after agriculture which encompasses the gamut of both labor and capital. India is the 3rd largest exporter of Textiles and apparel in the world and is one of the pillars of the Indian economy. According to the Trust established by the Department of Commerce, Ministry of Commerce and Industry, Government of India, the Indian textiles and apparel industry contributes nearly 2.3% to the country’s GDP, 13% to industrial production, and approximately 12% to exports.

According to the annual report 2022-2023 of the Ministry of Textiles, India is the third largest

exporter of textiles and apparel in the world with a share of 4.6% of the global trade in textiles and apparel. The major export destinations of Indian textiles and apparel are the USA, EU-27, and UK which account for nearly 50% of India's textiles and apparel exports.

Approximately 95% of the world's hand-woven fabrics come from India. At a Compound Annual Growth Rate of 10%, the market size of the industry is expected to reach $350 billion by 2030 (Invest India, 2023). This sector has featured a prominent role from the employment perspective and has provided livelihood to millions of people directly or indirectly including a large number of women and rural population.

1.3 Structural Classification of the Indian Textile Industry

In India, the textile industry is the second largest industry that provides massive employment in both rural and urban areas. In the process of textile manufacturing the framework of the Indian Textile Industry is categorized into two parts. The spectrum consists of –

- centralized sector which includes spinning mills and composite mills and the other end includes
- Decentralized sector which forms the largest component of the industry.

The contribution of the organized sector to the total fabric production in the country is merely 3% while the rest 97% of the total fabric production comes from the unorganized sector. (Joshi & Raichurkar, 2016)

1.4 Textile product manufacturing process

A textile is manufactured when it goes through various processes that form a value chain in the industry. There are several steps through which a final textile product is prepared, but these steps if categorized into two parts give a clear picture of the segmentation of sectors. A whole textile industry value chain involves the manufacture of yarn and manufacture of cloth. The sole producer of yarn is the organized sector of the textile industry which is used by the organized as well as unorganized sector. The organized sector involves Spinning mills and Composite mills. The spinning mills use a strong raw material base of the fibers produced in India and manufacture yarn very cost-effectively and make them available at a competitive price to the unorganized sector. The second part is cloth manufacturing which involves weaving and knitting, textile wet processing, and apparel manufacturing. These activities if carried on under the same roof to manufacture a textile product, fall

under the organized sector of the textile industry. On the other hand, if these activities are fragmented it is a completely unorganized and decentralized sector of the industry. The weaving and knitting process converts yarn to fabric, the wet processing involves dyeing, printing, and finishing the fabric to processed fabric and the last step is the garment or apparel manufacturing.

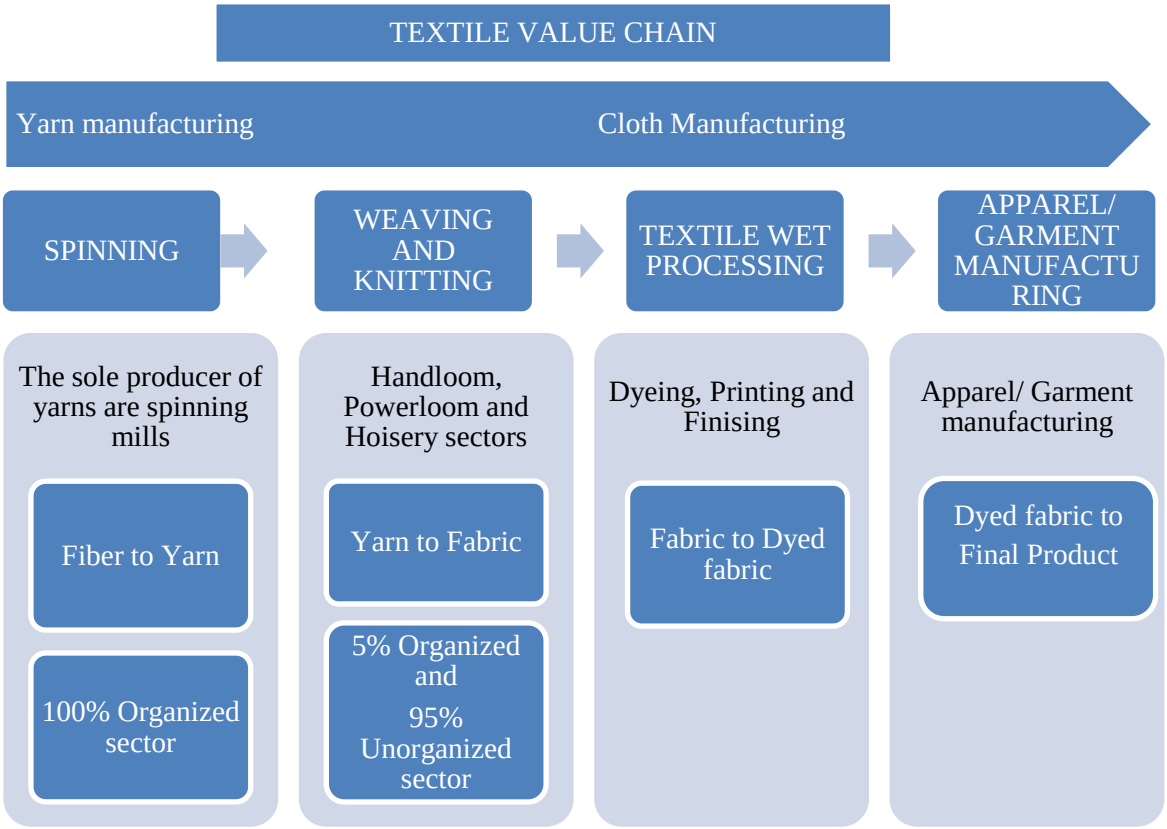


Fig.1: Textile value chain
(Source: Compiled by the researcher)

1.5 Indian Textile Weaving: An Overview

In the cloth manufacturing process, weaving refers to converting yarns into fabric which is done by weavers. According to a report in NITI Aayog, Indian textile weaving which is considered as the backbone of the Indian Textile Industry is 95% unorganized in nature. In the textile value addition chain, the weaving sector has always been globally uncompetitive because in India this sector is dominated by a large number of decentralized, independent, and small-scale enterprises. Due to low productivity and automation levels, this sector has always been the weakest association of the textiles and apparel industry of India.

According to the Department of Handlooms and Textiles, Government of Karnataka, India manufactures 5% of cloth through the organized sector, 20% through the Handloom sector, 15%

through the knitting sector, and 60% of cloth in India through the decentralized powerloom sector.

1.6 Textile Weaving in Bihar

According to Bihar Industrial Investment Promotion Policy (Textile and Leather Policy), 2022 the existence of the weaver's community is a treasure of the availability of skilled and semi-skilled workers for the textile units. Besides the regular weaving community, a large number of youths in the state are employable in the Textiles and Garment manufacturing units. After agriculture, the textile industry in Bihar offers propitious employment opportunities as the government of Bihar is committed to coming up with international standard infrastructure and facilities in the state.

1.7 Textile Weaving in Bhagalpur

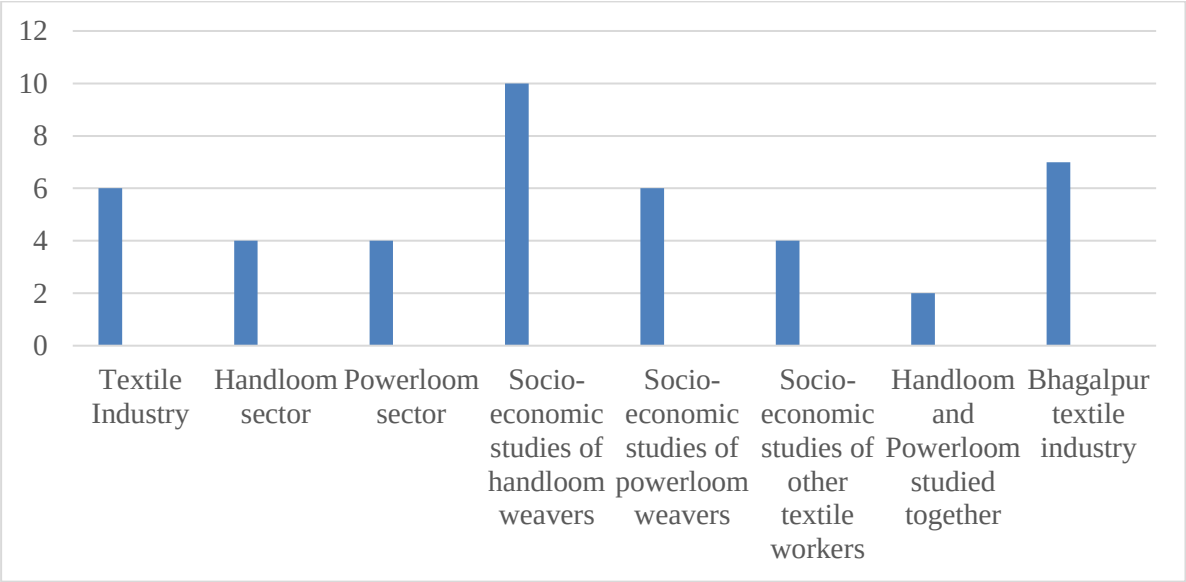
Bhagalpur, Gaya, and Banka are some of the well-known districts considered the textile clusters in Bihar, according to the Ministry of Textiles, Government of India. However, the Bhagalpur textile cluster is the most densely populated region in context to the textile weavers amongst any other clusters. The cluster has both types of textile industries including handloom and powerloom generating employment for thousands of people in the district. The supportive institutions in the Bhagalpur textile cluster include the Weavers Service Centre, District Industries Centre, Central Silk Board, Powerloom Service Centre, Bihar Institute of Silk and Textile, and Indian Silk Export Promotion Council. The weavers in the cluster earned a Geographical Indication tag for "Bhagalpur Silk Fabrics and Sarees" in the year 2013 for their artistic and unique style of weaving. Bhagalpur Silk Handloom is recognized by the India Post via a stamp issued in 2018. Central Silk Board, Ministry of Textiles, Government of India has listed Bhagalpur as the only silk center in Bihar to distinctively promote a pattern of design and weaving.

2.0 REVIEW OF LITERATURE

In the existing literature, a few studies have focused on the unorganized sector of the Textile industry in India. The weaving portion in the structure of the industry dominates in terms of employment and livelihood. Some of the prominent studies are categorized into the following as-

- Textile industry
- Handloom sector studies
- Powerloom sector studies

- Socio-economic studies of
  - handloom weavers,
  - powerloom weavers and
  - other workers in the textile industry
- Handloom and powerloom sectors studied together
- Bhagalpur textile industry



Graph1: Categorisation of review of literature

2.1 Textile industry

(Raichurkar & Ramachandran, 2015) stated that inadequate modernization of machinery and obsolete technology increased the cost of production as compared to China and led to the decline of competitiveness of the Indian textile industry. E-Marketing can serve as a great marketing tool where the weavers can directly sell their products under their brand name to buyers across the country. Training manpower to become skilled workers along with industrial exposure will help bridge the gap to using modern technology and becoming better professionals**.** (Sen & Majumder, 2015) explored the organized and unorganized sectors of the textile industry post-reforms for the period between 2001-2011. The study revealed that due to the unpreparedness of the situation of economic reforms, a sharp decline in the average productivity of the unorganized sector, a rise in the capital-labor ratio, and an increase in the relative gap with the organized sector were witnessed. An acute declension built in the relative efficiency of the unorganized sector with the organized one.

(Joshi & Raichurkar, 2016) elucidated the investment opportunities in the decentralized textile industry. The study recommended that an increase in Foreign Direct Investment flow both in monetary and non-monetary terms such as technology transfers, latest trends, and manufacturing processes tend to catch a good pace to compete with the global textile leader China. Cluster development programs and imperative interventions will improve the product potential in those clusters. India has a competitive advantage in cotton in the global textile trade as the international trade in textiles is mainly based on man-made or blended fabrics. (Pankaj & Lal, 2019) examined the contribution of the textile industry to inclusive growth and corporate social responsibility. The unorganized sector of the industry made its identity as a cottage industry in India which pushes it backward due to lack of technology gradation and finance. Although, the industry holds immense employment potential the big textile units do not contribute in terms of corporate social responsibility due to its informal and unorganized nature.

(Neetu, 2020) described that there is a strong relationship between the organized and unorganized sectors of the textile industry. The sole producer of yarn is the formal sector which is used by the both formal and informal sectors of the industry. Though the unorganized part is recognized as the traditional sector due to the usage of obsolete technology it employs the second largest labor force after agriculture and is the dominant contributor to the textile output. Weaving is done in the unorganized sector which involves handloom, powerloom, and hosiery units**.** (Kanpuriya, 2021) focused on analyzing the impact of COVID-19 from both the demand and supply sides and its combined impact on the Indian textile industry. The demand side factors in the study comprised social distancing, the demand of the consumers, and exports. Whereas the factors of the supply side included production, supply chain, employment, prices of raw materials, and imports. The depressed consumer demands and disrupted supply chains led the textile industry to face the worst crisis. The factory closures affected the production segment and the salesroom closures led to sales collapse. Such closures affected the wages of the employees and menaced the socio-economic conditions of the workers in the industry. There is an accurate need to abide by the International Labor Organization guidelines implementation for the welfare of workers in the industry to meet the challenges effectively.

2.2 Handloom sector studies

(Md. & Md., 2018) examined the determinants of profitability of the handloom weaving units in Kumarkhali Upazila under the Kushtia district of Bangladesh. The five factors on which the profitability depended comprised sales, labor cost, yarn cost, capital cost, and other input costs. The results imparted that cost, revenue, and profits were not the same for all the units. The total sales revenue, labor cost, yarn cost, and capital costs had a significant positive impact on the profitability of handloom unit owners while only the other input costs had a negative impact. It was appended that to increase the profitability in all the cases, the owners need to augment sales and expend on yarn cost inputs. Although labor deployment played a prominent role in increasing the profitability capital tends to be significant only for the large-scale units. (Uddin Talukdar, et al., 2023) emphasized the factors responsible for the migration of handloom workers to other professions. The independent variables in the study involved psychological, health hazards, financial, and non-financial factors. The results showed that the health hazards and non-financial factors had a positive and significant impact on the migration whereas, the psychological and financial factors had an insignificant impact on the handloom workers' migration.

(V.K. & Sindhu, 2023) observed the problems and challenges faced by the handloom industry which were categorized into production-related, market-related, and financial-related. The domestic market witnessed a decline in the popularity and demand for handloom products. The study propounded the need for reframing government policies and changes in the consumers' perception regarding handloom products. (Kalyani, Priyanath, & Gamage, 2023) focused on the impact of psychological capital on the organizational commitment and work engagement of the handloom workers. The results showed that psychological capital is a favorable predictor of both the variables. The employees' level of work engagement unveiled a positive impact on their commitment towards the organization and deliberately linked with the psychological capital. Regardless of the work full of stress, handloom weavers with the psychological capital gravitate to be enthusiastic which in turn expresses work engagement. Psychological capital sustains engagement and the employees' work engagement shows a positive influence on the commitment towards the organization which sway employees in the same workplace for a long time.

2.3 Powerloom sector studies

(Nateshan & Kuppusamy, 2016) centered on analyzing the different clusters of powerloom units using the cluster analysis method in Tirupur district in Tamil Nadu. Assorted dimensions like infrastructure, electricity, raw material, finance, labor, and marketing were analyzed. Put forward that experience showed a significant impact over all the dimensions and different dimensions had different strengths and weaknesses in different clusters. (Kudachimath & Mahantshetti, 2017) documented the overall scenario, trends, and growth potential of the decentralized powerloom industry in India. The number of decentralized powerloom units proliferated over the decades and the sector witnessed considerable growth due to flexibility in operating a loom and its advantages over the other sources of production. The increased output from powerloom created a positive impact on employment generation. Production of powerloom showed a significant impact on the GDP of the economy.

(Srivastava, 2017) assessed the issues and challenges faced by the workforce in the powerloom industry. The main disorder of the powerloom industry listed the supply of yarn and processing of cloth along with its sale hinged on private spinners and master weavers respectively. Hardships to the weavers ascribed to an imbalance between the weaving and spinning capacities as well as a lack of infrastructure in the pre-and post-weaving activities. Master weavers exploited the hired laborers to their advantage. Consequently, it was perceived desirous not to cut the handloom and powerloom markets and it should go hand in hand. (Sanyal & Yash, 2019) reviewed the growth and distribution of powerloom industry in India. The industry faced midget growth due to obsolete technology, the split nature of the sector, low productivity, and low-quality products.

2.4 Socioeconomic studies of Handloom weavers

(Kumar P. S., 2017) examined the socio-economic status with the income and expenditure levels of handloom weavers in Karimnagar district of Telangana. The parameters used for the study of social status comprised age, gender, social grouping, religion, education level, preference of occupation, health status, and amenities utilized by the weavers. The majority of respondents worked in the cooperative fold with a poor level of literacy. The profession was inherited by their fathers and forefathers with the majority of them living in a nuclear family, dependent alone on the weaving activity for their sustenance. More than half of the weavers had an income below ₹50,000 per annum.

Hardly they could save money, as their expenditure pattern was on the basic amenities such as food, education of their children, health, rent, and interest paid on borrowings. Almost all the weavers suffered a debt dilemma and for this reason, financial assistance was the most needed amongst any other types of assistance. (Balasubrahmanyam & Muthumeenakshi, 2018) assessed the socio-economic status of handloom weavers in the Nellore district of Andhra Pradesh adding on some parameters such as caste, house, ration card, lands and assets owned by them, types and status of looms, purchase of raw materials, and monthly weaving status. Most of the weavers belonged to backward caste and rural areas who did not possess land. Inbred professionals with independent weaving remunerated a very low income despite working for eight to ten hours a day. The weavers used traditional looms with 15 to 20 years of work experience. Supply of yarn was one of the major problems regarding its quality which they had to buy from the local dealers at a price they were asked for.

(Balasubramaniam & Shamitha, 2018) discussed the problems being categorized into three major issues which included input-related, weavers, and market-related. These problems affect the handloom industry and the socio-economic status of the weavers negatively which puts them in distressed living conditions. The competitions from powerloom and the organized sector are the challenges but the unique designs of the handloom artwork made the industry to command heights**.** (Mohapatra & Mishra, 2019) reviewed the problems and challenges faced by handloom weavers which consisted of yarn supply management, increasing input costs, rising cost of production, financial problems, market-related problems, research needs, and several others.

(Devi, Lakshmi, & Kameswar, 2019) observed that exerting most of the time in weaving automatically improved the weavers' socio-economic status. Computation of socioeconomic status relied on the three parameters which included income, educational qualifications, and profession. The study revealed that most of the weavers were from the upper-lower socio-economic category and worked as waged weavers who did not own looms. Meager monthly income forced them to migrate to some other occupations. (Chowdhury, 2019) emphasized the socio-economic problems faced by the weavers and compared the status of male and female weavers in the Sualkuchi silk industry of Assam. The three prominent parameters in the study to test the hypotheses included income, education, and

occupation. The occupational distribution of the study disclosed that the weavers worked not because of their own choice but because they were deprived of switching to another profession for their livelihood due to a lack of educational qualifications. Male weavers in the cooperative fold were more than the females and the majority of them were loom-less weavers working on rented looms. The income they received depended on the production basis rather than monthly basis. The high range of income for male weavers than females connoted the low economic status of females. With low family income major part of the monthly expenditures were spent on the consumption of goods. Their faith in non-institutional sources increased their debt burden accompanied by no job satisfaction due to much physical labor.

(Khan M. M., 2020) investigated several variables such as income, literacy, and health expenditures to explore the socio-economic status of the weavers along with the issues related to production, distribution, and consumption patterns. The education quality of the younger aged attributed incompatibility with the market skills. Lack of employment opportunities other than their hereditary artwork compelled them to work as daily wage workers for more than eight hours a day with a very low wage in return. Such a long hectic shift ensued them with health issues but the checkups in government hospitals diluted their spending. The expenditure pattern revealed a major portion of consumption rather than savings. (Sasikala & Venkatesan, 2020) assessed the social status and social problems of the weavers. Major aspects of the issues were divided into internal aspects faced by the weavers themselves and external aspects faced by the weavers from different sides. Earning capacity and purchasing power determined social status. Most of the issues could be sorted out by government interventions but most of them did not reach the government due to intermediaries and middlemen.

(Priyabrata & Kanchan, 2022) stated that the handloom weavers in India are in a pitiful state due to low socio-economic conditions and several other issues which include health-related and financial problems. Weavers had to face adversities due to the high cost of yarn and production in an unorganized market. Globalization and competition from powerloom distressed the socio-economic status of the handloom weavers in India. (Parvez & Zeba, 2022) their study found that most of the weavers were male and belonged to the Muslim religion in Uttar Pradesh. The majority of them worked as independent weavers with a diminutive wage of ₹ 5,000 or below and ran into debt. Lack of

education showed they never attended school in their lifetime.

2.5 Socioeconomic studies of Powerloom weavers

(Mohd & Nikhat , 2016) attempted to detect the effect of income, debts, savings, and financial support on the development of the socio-economic conditions of powerloom weavers. Meager income begot low savings and unveiled an insignificant impact on socio-economic development. However, the savings and financial support in the form of perpetual debts established the effect on socio-economic development. Government interventions are desirous and indispensable to improve the socio-economic development of the weavers. (Fatma & Mehrun, 2016) brought some information that more than half of the weavers' population belonged to the Muslim community. Children and females also engaged themselves in weaving activities to ameliorate the family income. At this stage of education and learning, children helped their family members nevertheless the inadequate income hindered their basic requirements. Where middlemen and manufacturers took away the greater tranche of profit in the fabric production process, lack of education deprived them of understanding the supply chain and market information which made them suffer economically. Poor economic conditions impoverished them to educate their children and better access to resources in society. The government must look into the pathetic conditions of the weavers or else the tradition would vanish from society.

(Nikhat, 2017) focused on the impact of resources on the socio-economic development of powerloom weavers in Rajanna Sircilla district in Karnataka. The diagnosis uncovered that hired workers or wage workers were the most suffered ones in the segments of the powerloom industry. The dependent variables in the study included work status, electricity, raw material availability, wages, technology, market facilities, and government support. The availability of resources had a significant impact on the socio-economic development of weavers. Correlation analysis showed that marketing facilities and government support had a negative correlation with socio-economic development. Availability of work and proper remuneration would tweak the socio-economic conditions of weavers. (J, 2018) addressed the issue that a major part of the profits grabbed by the middlemen put weavers in a pathetic situation. They are left inescapable as their professions are the only means of livelihood for their family. Borrowings as the main source of finance, and monotonous tasks leading to several health issues as well as low income with numerous expenditures put the weavers in affliction.

(Deore & Nikam, 2020) established that most of the unskilled workers easily operated powerlooms by mastering it in 2 to 3 weeks, inviting most of the uneducated populaces to this sector. The field survey ascertained the abysmal socio-economic status of the weavers as most of them were illiterate with inferior housing and working conditions. (Prakash, Rajendirabhabu, & Leelavathi, 2021) analyzed the impact of the COVID-19 pandemic on the socio-economic conditions of powerloom workers, operations of the industry, and the challenges faced by them during the pandemic. Unforeseeable and erratic technical labor issues along with the volatile price fluctuations of raw materials affected the owners of the powerloom industry. The closure of units during the pandemic resulted in a shortage of raw materials, a cash crunch, and a disturbance in the supply chain.

2.6 Socioeconomic studies of other workers in the textile industry

(Malagi & Chachadi, 2013) expounded on the improvement in the production and socio-economic status of women workers in the ready-made garment industry which shared about 16% of the foreign exchange earnings of the country. The results showed that Human Resources practices such as systematic selection, orientations, and regular training programs improved the socio-economic status of the workers, better productivity, and mitigated the problems related to industrial issues. (Rahman, Mukul, & Anny, 2014) examined the social and economic status of businessmen in the powerloom industry along with the identification of constraints and prospects of the business. The products sold directly to the customers rather than to a company on a contract basis elevated the income. The entrepreneurs had to purchase raw materials from the local markets at a very high rate which increased the production cost. To execute business, higher educational training was found to be nonessential, instead of which obtaining practical experience worked imperatively. Various issues and challenges in the powerloom business that the entrepreneurs had to face included the high cost of raw materials, inadequate supply of electricity, shortage of working capital, and insufficient support of policies and welfare schemes.

(Bhalla, Kumar, & Rangaswamy, 2018) probed into the socio-economic status and working conditions of village industries of Khadi handloom. The results showed out high female participation rate in the rural areas. The lower density of the population is attributed to better working conditions and the working environment. Moreover, the work timings and remuneration were better than in urban areas

due to the low cost of living, less distance to travel, and the concrete Khadi Village Industries Commission framework. However, corruption, slow decision-making, and lack of vision ameliorated the production potential of the industry. (Sivasubramanian, 2019) discussed the socio-economic conditions of women workers in the informal textile stores in Chennai city. The compulsion to work for several hours in informal stores, exiguous wages, and poor literacy corroborated the awful exploitation of women workers in the unorganized sector than the organized sector. Flouting the Minimum Wages Act, wages were decided by the shop owners based on the number of days they worked. Age factor had an insignificant relation with the wages but educational qualifications had a positive impact as literate women workers could involve themselves in accounting and earn additional income as compared to the sales associates. Thus, education turned out to be the main determinant of the socio-economic status of women although being deprived of social security benefits affected their occupational health problems.

2.7 Handloom and powerloom sectors studied together

(Rahman & Rahman, 2015) attempted to know the socio-economic profile of both handloom and powerloom workers in addition to the determinants of income in both the sectors in Sirajganj district of Bangladesh. The socio-economic status of powerloom workers proved to be better than the handloom workers which drove many handloom workers to shift to the powerloom sector in expectation of higher income and better comfortability.

(Tippa & Mane, 2019) inquired into the scenario of weaving conditions for both handloom and powerloom women weavers of Guledgudd. Weavers in indigence depended on handloom due to the expensive establishment of powerloom. Contrarily, modernization fomented to launch of powerloom in one-fourth of the weavers' community with the adoption of new designs in their occupation. Widespread powerloom persuaded young generations to shift their interests from handloom to powerloom due to easy manufacturing techniques.

2.8 Bhagalpur Textile Industry

(Kumar & Murray, 2008) investigated the socio-economic conditions of silk weavers in the clusters of Bhagalpur district along with the demand and supply of silk products. Weavers in destitution brooked acute capital crises, lack of unions, fewer job opportunities, wide illiteracy, and manipulation of

government schemes. Apart from these, continuous working hours tormented several health issues and the advent of powerlooms created hurdles for the handloom weaving sector. (Priyadarshini, 2014) explored the living and working conditions of women in silk spinners in Bhagalpur due to the changing dynamics of the silk business. The declining wages affected the survival of workers and forced them to work for longer hours. The emergence of machines replaced the work of yarn reeling and spinning activities from women, which was earlier handspun. Strong ramifications of the Liberalization of the Indian economy and the communal riots of 1988 led the Bhagalpur silk industry to witness a constant downfall since the late 1990s. The readymade yarn available in the market being cheaper and durable, drastically impacted the spinner who produced hand spun yarn. The concentration of silk business under the control of wealthier businessmen resulted in the loss of livelihood of many weavers and spinners. Small weaving families were left with the only option to work as wage laborers who earlier managed to sustain their independent businesses.

(Kumari, 2016) explored the empowerment of women silk weavers of Bhagalpur where most of the weaving activities were undertaken by the male members of the family and the women managed only thread warping and fixing. Howbeit, women formed the essential workforce in the silk industry of the cluster as ninety percent of the pre-loom activities were performed by them which furnished for the subsequent weaving activities. Technological advancements led women handloom weavers to face severe challenges in terms of production, productivity, and technology which necessitates them to pay more heed to upgrade their traditional skills. (Khan S. H., 2020) analyzed the weavers' community in Bhagalpur considering different aspects such as infrastructure, availability of raw materials, finance, and social linkages. The inappropriate planning in the industrial clusters led to the decline of these industries and affected the socio-economic aspects of the communities. Readymade mechanized goods and government policies adversely affected the cottage industries. The skilled and employed artisans who were once masters of their beautiful art had to work as daily wage laborers with extremely low wages. Finding any other alternative source of income for survival and renouncing the traditional workers have put the future of art and craft at stake.

(Arya & Ramchandra, 2022) emphasized the analysis of the production and marketing of silk in Bhagalpur. Where direct channel was found to be the most suitable option for cocoon and yarn

marketing, silkworm rearers and reelers used this method as the secondary method of marketing for selling the products. People engaged in Sericulture earned profit and improvised their standard of living, as Bhagalpur is the largest oak tasar producer district in Bihar**.** (Divyanshi, Kumar, & Singh, 2022) looked into the patterns of income generation among the weaving society of Bhagalpur district. Weavers being an integral part of the industry did not get enough attention. Due to poor economic conditions, most of the weavers tend to be illiterate, pushing them into poverty and devastating living conditions. The constant rise in expenditures accompanied by the slow-rising income has put their survival only to feed themselves and their family. Weavers being the main pillars of the textile industry find themselves at the bottom of the economic pyramid of the sector. Their low daily wages have put them into debt and decreased their savings. (Divyanshi, Kumar, & Singh, 2022) found that weavers of Bhagalpur faced a lack of raw materials, insufficient weaving facilities, pandemic lockdown, transportation problems, lack of cooperative support, and many others which led to their poor economic conditions and doubtful social security.

3.0 RESEARCH GAP

Perusing the above review of literature, the researcher has identified the following gaps: -

- It is found from the above reviews that there are numerous studies related to the handloom and powerloom sectors in particular, but as per the researcher's knowledge there are very few studies where both the handloom and powerloom sectors are studied, analyzed, and presented comprehensively. The weaving sector holds an essential involvement in the employment generation of people in the Indian textile industry. The social and economic conditions of handloom and powerloom weavers albeit working collectively in the realm of weaving are monitored individually.
- Different countries and states have different demographic profiles, cultures, and traditions resulting in different socio-economic statuses of people in the societies. The working and living conditions of industrial workers especially those of unorganized and informal sectors are daunting and should be probed and placed before to take the lid off the ground realities.
- The studies related to the socio-economic conditions of the weavers of the Bhagalpur district in particular are scanty. Thus, this study will be a contribution to fill these gaps and enhance the

knowledge to be helpful hereafter.

4.0 NEED OF THE STUDY

According to the report from NITI Aayog in 2023, in terms of global exports of cotton yarn, India holds a magnificent presence. However, the economy of India needs to improve its position from a supplier of cotton yarn to a producer of value-added fabrics and garments.

The weaving sector in India is dominated by small-scale enterprises which face several challenges forming the woes for the textile weaving of India. The overall production of fabric is getting dampened. Despite being the backbone of the Indian Textile Industry, the weaving sector remains one of the weakest associations. To be competitive, the Indian Textile Industry needs to focus on investing in new technology and expanding weaving capacity. Thus, the disquisitions prompted the researcher to investigate the realm of textile weaving. The Indian textile industry will grow when the weaving sector is focused.

When the weaving sector flourishes, the Indian textiles and apparel production and export earnings will increase. Weaving is traditionally done in the places it existed for more than decades in different states in India and Bihar is one of them. Bihar has a handful of laborers in which weaving is not an exception as a labor task. Bhagalpur in Bihar is a major cluster for textile weaving in the state which is informal

and has employed thousands of people directly and indirectly.

5.0 RESEARCH QUESTIONS

- Do the challenges and issues faced by the weavers of both sectors differ from each other?
- Are government schemes implemented effectively in the area of the study?
- Are the weavers of Bhagalpur deciding to switch their professions to other alternative jobs will the next generation involve themselves in textile weaving?
- Will the government be the panacea for the challenges faced by the weavers of Bhagalpur?

6.0 OBJECTIVES OF THE STUDY

Based on the above reviews and the need of the study, the researcher has made certain objectives which are listed below: -

1. To examine the legal and regulatory frameworks of the Central and State governments with

respect to textile weaving.

2. To identify intricacies of socio-economic challenges faced by the weavers in the Bhagalpur textile cluster.
3. To compare the socio-economic conditions of handloom and powerloom weavers in the major clustered areas of Bhagalpur district.
4. To analyze various government schemes for the welfare of weavers in the Bhagalpur textile cluster.
5. To suggest an action plan based on SWOC analysis of Bhagalpur textile weaving.

7.0 RESEARCH DESIGN AND METHODOLOGY

7.1 Sources of Data

7.1.1 Primary Data: The study is based on primary data which involves the collection of data by interviewing weavers and through structured questionnaires from the government officials associated with both handloom and powerloom departments in the Bhagalpur textile cluster.

7.1.2 Secondary Data: To supplement the analysis of primary data, secondary data will be used wherever necessary. The secondary data will be collected from studies on the internet, journals, research articles, websites, etc.

7.2 Duration of the study – secondary data 20s10 onwards, primary data 2024 onwards.

7.3 Scope of the Study - Bhagalpur textile cluster

7.4 Universe of the Study - According to the All-India Handloom Census conducted by the Ministry of Textiles, Government of India, and the District Industries Centre, Bhagalpur the number of registered weavers in the Bhagalpur Textile Cluster is given as follows:

Table1: Total number of handloom and powerloom weavers in Bhagalpur District

Handloom Weavers(approx.)	Powerloom Weavers (approx.)	Total Weavers(approx.)
3,449	2,700	6,149

7.5 Determination of Sample Size and Sample Design

Using Cochran's formula: -

$$n = \frac{n_0}{1 + \frac{(n_0 - 1)}{N}}$$

Where n_0 represents Cochran's sample size,

N = Population size = 6,149

n = new adjusted sample size,

n_0= Standardized population size = 384,

we get a sample size of n= 362. However, the number of weavers in both sectors is unequal so to make it comparable, the researcher will take a proportionate of 10% of both handloom and powerloom weavers. The primary data will also include a well-structured questionnaire from the government officials of both sectors.

Table 2: Determined Sample Size

	Handloom	Powerloom	Total Sample Size
Weavers	350	270	620
Government officials	25	25	50

7.6 Selection of Sample Units

According to the All-India Handloom census conducted by the Ministry of Textiles, Government of India, Jagdishpur block in Bhagalpur district is the most populated region of handloom weavers whereas District Industries Centre, Bhagalpur confirms that Nathnagar block in the district has the maximum number of powerloom weavers.

7.7 Variables of the Study

The weaving community in the Bhagalpur textile cluster lies in the poor category due to which income is the major determinant of their socio-economic status. So, their income as the most important factor in finding their socio-economic status depends on some variables which include – age, experience, education, working hours, family size, and training. The rationale for selecting these variables is based on the previous studies. Based on these selected variables for the study, the proposed model will be studied –

$$Y = \beta_0 + \beta_1 Age + \beta_2 Experience + \beta_3 Education + \beta_4 Working\ hours + \beta_5 Family\ size + \beta_6 Training + e_i$$

Where, Y = Monthly income of handloom and powerloom weavers.

7.8 Hypotheses of the study

H_{01} – There is no significant impact of age on the income of weavers.

H_{02} – There is no significant impact of experience on the income of weavers.

H_{03} - There is no significant impact of education on the income of weavers.

H_{04} – There is no significant impact of working hours on the income of weavers.

H_{05} – There is no significant impact of family size on the income of weavers.

H_{06} – There is no significant impact of training on the income of weavers.

7.9 Research Methodology

S No.	Objectives	Methodology
1.	To examine the legal and regulatory frameworks of the Central and State governments with respect to textile weaving.	To achieve this objective various government policies will be studied.
2.	To identify intricacies of socio-economic challenges faced by the weavers in the Bhagalpur textile cluster.	SWOC analysis will be done to accomplish this objective.
3.	To compare the socio-economic conditions of handloom and powerloom weavers in the major clustered areas of Bhagalpur district.	Univariate and Bivariate analysis, Multiple Regression Model along with its diagnostics- VIF, Granger Causality, etc. will be used.
4.	To analyze various government schemes for the welfare of weavers in the Bhagalpur textile cluster.	To attain this objective Content Analysis will be done.
5.	To suggest an action plan based on SWOC analysis of Bhagalpur textile weaving.	SWOC Analysis will be done to achieve this objective.

8.0 PROPOSED CHAPTER PLAN

Chapter 1 - Introduction

Chapter 2 – Review of Literature

Chapter 3 – Research Design

Chapter 4 – Analysis

Chapter 5 – Findings and Conclusions

9.0 GLOSSARY OF TERMS

1. Socio-economic status – It refers to a person's position in the social hierarchy which is determined

by the combination of social and economic factors such as income, occupation, education, health, etc.

2. Dynamics- The properties that stimulate a change within a system or a process.
3. Weaver– Weaving is the process in which the threads are interlaced to form a pattern and the person who weaves is called a weaver.
4. Textile cluster – Ministry of Textiles, Government of India performs clustering which means giving identities to a group of people who perform textile-related activities by combining their efforts.
5. Handloom- A loom that is used to make fabrics without the use of electricity.
6. Powerloom- A loom that is used to make fabrics with the use of electric power.

REFERENCES

- Kudachimath, D. S., & Mahantshetti, S. S. (2017). Perspectives of decentralized powerloom industry in India- An empirical analysis. *International Journal of Management and Social Sciences*, 13-23.
- Arya, A., & Ramchandra, D. (2022). An economic analysis of production and marketing of silk in Bhagalpur district of Bihar. *The Pharma Innovation Journal*, 1917-1924.
- Babel, S. (2013). A profile on women handloom workers of Rajasthan. *Asian Journal of Home Sciences*, 47-50.
- Balasubrahmanyam, N., & Muthumeenakshi, M. (2018). Socio-economic conditions of handloom weavers in Andhra Pradesh: A case study of Nellore district. *International Journal of Mechanical Engineering and Technology*, 189-197.
- Balasubramaniam, P., & Shamitha, K. V. (2018). Socioeconomic condition of Handloom weavers: A case study with special reference to Handloom Weavers Co-operative society in Kannur district. *International Journal of Pure and Applied Mathematics*, 1411-1423.
- Bhalla, K., Kumar, T., & Rangaswamy, J. (2018). An integrated rural development model based on comprehensive life-cycle assessment (LCA) of Khadi- Handloom Industry in Rural India. *25th CIRP Life Cycle Engineering (LCE) Conference* (pp. 493-498). Copenhagen, DENMARK:

ELSEVIER SCIENCE BV, SARA BURGERHARTSTRAAT 25, PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS.

- Chowdhury, N. (2019). Socio-economic problems of muga silk weavers of sualkuchi silk industry. *International Journal of Scientific & Technology Research*, 595-601.
- Deore, K. G., & Nikam, M. (2020). Socio-economic condition of powerloom weavers: A study of Malegaon city. *Journal of Engineering Sciences*, 982-987.
- Devi, M., Lakshmi, V. V., & Kameswar, I. R. (2019). Socio economic status of handloom weavers in Warangal Urban District. *International Journal of Current Microbiology and Applied Sciences*, 690-696.
- Divyanshi, Kumar, D. S., & Singh, V. (2022). A study on income generation pattern of loom weavers in Bhagalpur district of Bihar. *The Pharma Innovation Journal*, 594-599.
- Divyanshi, Kumar, S., & Singh, V. (2022). Constraints Faced by Loom Weavers Related to Production and Marketing of Weaved Products in Bhagalpur District of Bihar. *Asian Journal of Agricultural Extension, Economics & Sociology*, 249-253.
- Fatma, M. S., & Mehrun, N. (2016). Socio-economic condition of powerloom weavers: A case study of Mau city. *International Journal of Humanities and Social Science Invention*, 31-36.
- Ferdaus, M., Shah, A. M., Rumi, M. H., & Abedin, M. M. (2023). Impacts of Covid-19 on Textile Industry Workers in Bangladesh: Socio-Economic Perspective. In S. A. Babu, *5th World Congress on Disaster Management: Volume III* (pp. 216-226). Routledge.
- Invest India. (2023). *Textiles and garments weaving new India, one thread at a time.* New Delhi: National Investment Promotion and facilitation agency.
- J, R. P. (2018). A study on problems faced by powerloom weavers in Vellore district. *International Journal of Social Science and Humanities Research*, 60-66.
- Jay, P. (2015). Raw visionary: Samant Chauhan, Bhagalpur silk, and the Aesthetic Economy of Indian Fashion. *The Journal of Design, Creative Process & the Fashion Industry*, 99-124.
- Joshi, V., & Raichurkar, P. P. (2016). Investment Opportunities in Decentralized Textile Industries Cluster Development Approach: A Path Way. *International Journal on Textile Engineering and*

Processes, 13-19.

- Joshi, V., & Raichurkar, P. P. (2016). Investment Opportunities in Decentralized Textile Industries- Cluster Development Approach: A Path Way. *International Journal on Textile Engineering and Processes*, 13-19.
- Kalyani, L. D., Priyanath, H. M., & Gamage, A. S. (2023). Psychological Capital, Work Engagement and Affective Organizational Commitment among Employees of the Handloom Industries in Sri Lanka. *Sri Lanka Journal of Social Sciences and Humanities*, 91-100.
- Kanpuriya. (2021). COVID-19 and the Indian Textiles Sector: Issues, challenges and prospects. *Vision: The Journal of Business Perspective*, 7-11.
- Khan, M. M. (2020). Socio-Economic condition of Handloom weavers-A case study of ChiralaMandal, Andhra Pradesh. *IOSR Journal of Economics and Finance*, 66-75.
- Khan, S. H. (2020). Loss of traditional industry and a state of urban decay in small-scale industrial cluster: A case study of Bhagalpur, Bihar, India. *Journal of Urban Regeneration and Renewal*, 389-405.
- Kumar, C., & Murray, E. V. (2008). *Blueprint for development of weavers of Bhagalpur*. Pune: VAMNICOM.
- Kumar, P. S. (2017). Socio-economic conditions of Handloom Weavers: A study in Karimnagar District of Telangana. *Research Journal Of Economics and Business Studies*, 21-28.
- Kumari, B. (2016). Women empowerment through skill development: The study of silk weavers of Bhagalpur, Bihar. In D. P. T, *Skill India and development: Emerging debates* (pp. 1-11). Mysore: National Centre for Inclusive Growth and Development Research.
- Malagi, M. K., & Chachadi, D. H. (2013). Innovative Hr practices to improve Socio- Economic conditions of women workers in Garment industry- An Empirical Study. *ISOR Journal of Business and Management*, 16-21.
- Markets, R. a. (2023). *Research and Markets.* Retrieved from https.//www.researchandmarkets.com: https://www.researchandmarkets.com/report/textiles
- Md., K. I., & Md., E. H. (2018). Determinants of Profitability of Handloom weaving units

operating in Kumarkhali Upazila of Kushtia district in Bangladesh. *International Journal of Research in Business Studies and Management*, 1-7.

- Mohapatra, A., & Mishra, S. S. (2019). A Study on the Present Condition of the Weavers of Handloom Industry: A Review. *International Journal of Interdisciplinary Research and Innovations*, 235-241.
- Mohd, A. K., & Nikhat , S. (2016). Socioeconomic development of power loom workers - A case study of Sircilla weavers of Karimnagar district in Telangana. *Golden Research Thoughts*, 1- 13.
- Nateshan, R. K., & Kuppusamy, S. (2016). Poweloom sector enterprises cluster analysis - A study on selected Powerloom units. *Asian Journal of Research in Social Sciences and Humanities*, 1073-1086.
- Neetu, J. (2020, 12 16). *Structure of the Indian Textile Industry: An overview*. Retrieved 12 16, 2020, from textilelearner.net: https://textilelearner.net/structure-of-the-indian-textile-industry-a-case-study/
- Nikhat, S. (2017). Availability of resources in development of power loom weavers - A case study of Rajanna Sircilla district of Telangana. *Journal of Emerging Technologies and Innovative Research*, 1045-1051.
- Pankaj, D., & Lal, R. C. (2019). A critical analysis of Indian Textile Industry: An insight into inclusive growth and social responsibility. *Russian Journal of Agriculture and Socio- Economic Sciences*, 53-61.
- Parvez, A., & Zeba, S. (2022). A study of socio-economic conditions of handloom weavers in Uttar Pradesh of India. *Saudi Journal of Economics and Finance*, 341-352.
- Prakash, D., Rajendirabhabu, C., & Leelavathi, D. (2021). Impact of Power loom Industry during Covid- 19 Pandemic period major district in Tamil Nadu. *Turkish Journal of Computer and Mathematics Education*, 2029-2035.
- Priyabrata, P., & Kanchan, B. (2022). Socio-economic condition and insecurity of handloom weavers of India: A systematic literature review. *Prikalpana - KIIT Journal of Management*, 153-164.

- Priyadarshini, A. (2014). Spinning silk in the [Neoliberalised] “Silk City” of India. *Samyukta: A Journal of Gender and Culture*, 56-71.
- Rahman, A., Mukul, A. A., & Anny, S. A. (2014). A study on powerloom business in some selected areas of Sirajganj district: It focuses on present scenario and future prospect. *International Journal of Business and Economics Research*, 140-149.
- Rahman, H., & Rahman, M. (2015). A Comparative analysis of socio-economic status of handloom and powerloom workers in Sirajganj district of Bangladesh. *Journal of Social Science*, 127-141.
- Raichurkar, P., & Ramachandran, M. (2015). Recent trends and developments in Textile Industry in India. *International Journal on Textile Engineering and Processes*, 47-50.
- Sanyal, S., & Yash, R. (2019). Performance of Unorganized Powerloom Industry in India: A review. *Ind. J. of Landscape Systems and Ecological Studies*, 140-151.
- Sasikala, M. S., & Venkatesan. (2020). Misery of handloom industry and socio-economic status of weavers during covid-19 pandemic situations. *RESEARCH EXPLORER-A Blind Review & Refereed Quarterly International Journal*, 1-5.
- Sen, S., & Majumder, S. (2015). Relative efficiency of organized and unorganized segments of Indian Textile Industry: A preliminary exploration. *The Journal of Industrial Statistics*, 37-57.
- Sivasubramanian, K. (2019). Educational, social and economic status of women in textile industry in India: The case of the informal textile retail stores in Chennai city. *Research in Educational Policy and Management*, 33-43.
- Sree Vyshnavi, P. V., & Nair, S. S. (2017). Handloom sector in India: A literature review of Government Reports. *International Research Journal of Management and Commerce*, 418-438.
- Srivastava, D. K. (2017). Power driven looms: The Indian decentralized textile sector. *International Journal of Engineering, Science and Mathematics*, 97-107.
- Tippa, N. G., & Mane, D. M. (2019). Socio-economic conditions of Women weavers in Guledgudd: An empirical study. *International Review of Social Sciences and Humanities*, 544-549.

- Uddin Talukdar, M. M., Hossain, M. M., Uzzal, A. B., Sarker, M. S., Khatun, M. A., Al amin, M., . . . Rahman, M. M. (2023). Influencing Factors of Workers' Migration from loom industries to other Professions: Evidence from Sirajganj district of Bangladesh. *Journal of Management Information and Decision Sciences,* 1-6.
- V.K., R., & Sindhu, B. (2023). Challenges Faced by the Indian Handloom Industry and Strategies to Overcome the Challenges. In R. V.K., & D. Sindhu, *Emerging Issues in Business, Economics and Accounting* (pp. 70-79). New Delhi: Bloomsbury, New Delhi.